

TO: Salifu Yakubu
Principal Planner

FROM: Carl W. Mosher

SUBJECT: SEE BELOW

DATE: 07-22-04

Approved

Date

SUBJECT: COMMENTS ON THE DRAFT ALTERNATIVES FOR THE COYOTE VALLEY SPECIFIC PLAN FROM THE ENVIRONMENTAL SERVICES DEPARTMENT

BACKGROUND

The Environmental Services Department is pleased to submit our comments on the draft Composite Core Plan for Coyote Valley, specifically on the various elements of the design concepts and an analysis of the armature elements of the Composite plan.

Our department has identified several key areas where we can contribute expertise, analysis and support, specifically in the areas that promote sustainability:

- Storm water and compliance
- Recycled Water Issues
- Hydrology—water availability
- Treatment Plant issues
- Water Quality issues
- Utility/Sanitary Sewers
- Sustainable Design/Green Buildings
- Integrated Waste Management
- Habitat

Sustainability—the over-arching concept

The Sustainable City Policy as adopted by Council within the General Plan is the over-arching policy based on which ESD submits the following comments. It was with the Sustainable City Policy as a guiding statement that the Department adopted its mission statement:

“Working with our community to conserve natural resources and safeguard the environment for future generations.”

Sustainable community design must be considered from the very outset including street patterns and lot configurations that support solar orientation.

In addition, City staff has participated in the Santa Clara Basin Watershed Management Initiative (WMI), which has developed a Watershed Action Plan and Vision for the Santa Clara Valley. The Coyote Valley project presents a unique opportunity to implement the vision developed by

this stakeholder group (see attached). The vision focuses on set backs from creeks, protection of habitat, high density, multi-use development, and easy access to public transportation. The Watershed Action Plan presents useful guidance for this planning effort that should be considered. It can be found at www.scbwmi.org.

ANALYSIS

Sustainable Building Design

Sustainable Design of buildings has been a strong component of the City's General Plan. This was reinforced with Council's adoption of the Green Building Policy in 2001. The following are some key elements that should be considered when developing the final alternative for Coyote Valley.

- **Solar Orientation and Solar Access Guidelines**
As described in the City's Residential Design Guidelines—Solar Access Chapter, "*Site plans should be designed so that the solar orientation of residential structures can be optimized*" Ensuring the proper orientation of the streets within Coyote Valley will be important, not only for the potential energy savings and use of renewable energy, but especially considering the potential passage of some current legislation (SB1652) before the California Legislature.

SB1652 (Murray) requires 15% of any new for sale housing, of 25 units or more, built on or after January 1, 2006, to be constructed with solar PV energy systems that produce an average of at least two kilowatts of electrical power per unit. This requirement would increase by 10% each year until reaching 55% in 2010.
- **Green Building/LEED™**
The City adopted the use of the U.S. Green Building Council's LEED™ rating system for all new municipal facilities. Our work in this area has shown that consideration of life cycle costs/benefits, at the earliest planning stages, is critical to ensure that buildings are built in a sustainable manner. Development in Coyote Valley should incorporate Green Building for all development and should require developers to use the LEED™ rating system.

Water Supply

Hydrology- Water Availability

Potable water will only be supplied from wells, since there is no surface treated water available in Coyote. SCVWD is conducting a groundwater modeling study to determine the safe yield of the aquifer. Several wells and storage facilities will be required to meet domestic and fire safety demands. This project must define the potable water needs and confirm demand projections, then confirm availability of the necessary potable water supply.

Advanced Water Treatment/Recycled Water

We estimate that the recycled water system can currently supply up to 5 million gallons per day to Coyote downstream from MEC. Recycled water supplied in Coyote for irrigation purposes would require additional advance treatment as stipulated by SCVWD. Muni Water retained a consultant to analyze the size and costs of the improvements that will be required to increase the capacity of the recycled water system to Coyote. The estimated size and cost of the advance water treatment plant will also be provided when the demand projections are finalized.

- Advanced Treatment will result in wastes (RO reject waters) that will need to be disposed of/treated. Costs and environmental effects of these wastes should be considered. While some uncertainty remains regarding who will be the water supplier for this area, incorporating Maximizing use of recycled water is key to the success of developing Coyote Valley

Stormwater

Coyote Valley represents an opportunity to demonstrate how stormwater management is best integrated into community design from inception. ESD looks forward to continuing to participate in discussions on how to address stormwater, including the following issues:

- Compliance of projects within the Coyote Valley Specific Plan (CVSP) area with New and Redevelopment Provisions of the City's Stormwater NPDES Permit (Provision C.3). Projects must meet the pollutant control and hydraulic flow control criteria included therein or adopted as a result of Provision C.3. Stipulations for exemption or alternative compliance which the City may adopt for infill projects should not be extended to projects within the CVSP area.
- Controlling for hydromodification impacts of development. Any feature or detention basin intended to serve as stormwater mitigation for projects within Coyote Valley must be of an adequate size and design to meet Provision C.3 and in particular, the Hydromodification Plan (HMP) performance criteria for all developments it is intended to mitigate. The HMP Report - Public Review Draft is available now. Proposed criteria include managing project flows to pre-project flows and durations, and managing cumulative development to maintain an Erosion Potential of no more than 1.2 in streams.
- Ongoing operation and maintenance (O&M) of stormwater control measures. Large scale, or regional, solutions (such as detention basins) require ongoing maintenance in order to be effective. The cost impacts to the City should be evaluated for any control measure turned over to the City. The City should be mindful of accepting responsibility for such measures without identifying an ongoing funding mechanism to support the work. Alternately, even if the City does not bear responsibility for O&M, the City's stormwater NPDES permit requires that the City "verify" that O&M are conducted (e.g., via inspections).

Utility Infrastructure

- Routing and capacity of water mains must be addressed early in the planning process.

GIS/Elevation Data

The current elevation data for the Coyote Valley will not be sufficient to assess the impact of storm water runoff on the adjacent riparian areas, and infrastructure development (i.e., potable/recycled/sewer infrastructure). A more detailed assessment of elevation needs to be done. The level of detail necessary to assess the impact of storm water runoff and to conduct preliminary infrastructure engineering analysis would be 1 foot elevation contour intervals. This can be done using the same technology ESD used on WPCP Property in 2002, Light Detection and Ranging (LIDAR). A LIDAR-based elevation assessment is more cost effective than other, more traditional, elevation survey methods.

Landscaping/Water Conservation

By increasing San Jose's population by 75,000, planned development in Coyote Valley obviously represents a significant increase in water demand. With growth occurring in other parts of the City and County as well, it is important that development in Coyote Valley minimize its impact to water supply. This can be done in several ways.

- Implement water conservation strategies included in LEED sustainable building practices.
- Install 1.0 gallon or dual-flush water closets to reduce indoor water use.
- Install composting toilets in park settings.
- Utilize non-potable supplies such as recycled water and gray water where possible.
- Dual-plumb to ensure the use of recycled water where appropriate.
- Utilize rain harvesting for outdoor supply.
- With outdoor water use representing perhaps the most significant demand on water supplies, creating urban landscapes with natives and drought-tolerant plants will be necessary to minimize the impact of Coyote Valley development on water supplies.
- Follow the Best Management Practices put forth by the California Urban Water Conservation Council.

IWM Services

This development could generate an estimated 100,000+ tons per year of residential and commercial/industrial solid waste. From a sustainability and resource management perspective, there needs to be a local infrastructure to manage the waste. Using a local facility such as Kirby Canyon, which already has a recycling component in its permit and EIR, as well as Z-Best for composting of organics, could be part of a multi-pronged approach to establishing an infrastructure to manage resources locally. Minimizing the haul distance for both garbage and recyclable material should be a goal of the plan.

- There are also Residential Design Guidelines and other requirements in SJMC and Public Resources Code regarding the design of streets and buildings to allow for the efficient collection of waste and recyclables. These guidelines and regulations must be taken into consideration to ensure adequate space for solid waste containers and accessibility.

Transit

Development of the Coyote Valley needs to take into account the accessibility of town centers and parks from residential neighborhoods by multi-modal transportation means, including development of secure, safe and diversified bicycle and walking paths.

Treatment Plant Issues (Manage Wastewater)

- The San Jose/Santa Clara Water Pollution Control Plant is an advanced wastewater treatment plant with a 167 Million Gallons Day (MGD) capacity. The Plant serves the cities of San Jose and Santa Clara and six other tributary agencies. This capacity is allocated to the existing cities. The average daily flow is about 120 MGD. This flow may be increased due to changes in the economic climate. Some of the remaining capacity has already been allocated to various existing cities. Prior to approval of the final development plan, the available capacity must be verified. Based on a projection of 25,000 residences, there should be enough capacity to serve this new development. Prior to final approval of this development plan, this capacity must be re-verified. Flows over 120 MGD are subject to NPDES permit requirement, in which any flows above 120 MGD during dry season months, must be shown to not negatively impact endangered species habitat in the area of discharge.
- Water Quality issues: The San Jose/Santa Clara Water Pollution Control Plant has some of the most stringent limits in the country because it discharges into a shallow Bay which has been declared an impaired water body. Some limits are or will be based on Total Maximum Daily Loads which analyze how much capacity a water body has to assimilate a pollutant. Based on this capacity, dischargers are allocated a load. Increased flows and pollutants may affect the Plant's ability to meet these limits and allocated loads. Pretreatment Program (discharge to sanitary sewer) requirements and incentives for water efficient technologies will apply for industrial operations that may locate in Coyote Valley.
- The Plant does not support a scalper plant concept due to negative environmental and financial impact.

Habitat Protection (Protect Natural and Energy Resources Core Service)

- ESD staff has considerable experience with habitat issues, particularly wetland issues and could assist with analysis on effects of the development on the habitat in the area and the potential for creating and/or restoring habitat at the site.
- Existing habitat should be protected and enhanced to the maximum extent feasible. For example, riparian forests are extremely rich habitats and if the project site has remnants or the potential to create/restore such habitat, it should be considered.
- ESD staff is also experienced in interactions with resource agencies and has assisted with the King Road project. Such experience may also be beneficial to this project.
- Lake Element—There are some concerns related to the central lake water feature. This feature had substantial utility and environmental benefits as a stormwater retention basin and potential holding pond for recycled water. However, since these uses are no longer being considered, it will merely be an artificial lake that may not be consistent with the existing topography, soils, or ground water. Since such lake habitat had not existed in the region before, it does not constitute a restoration and will likely attract common ducks and geese that may create negative impacts such as

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July 22, 2004

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fecal contamination and result in expensive management and maintenance. Other environmental concerns are algae growths and mosquitoes/vector control.

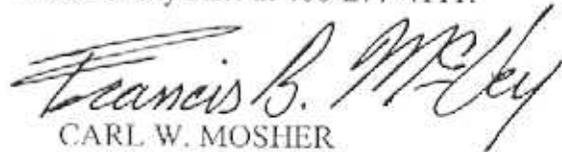
Adopted City Policies of particular interest within ESD—applicable to Coyote Valley

ESD would like to ensure that several adopted City policies are included in the planning process for the Coyote Valley. The following policies are enclosed:

- Water Policy
- Green Building Policy
- Energy Policy
- Integrated Waste Management Policy

Staff of the Environmental Services Department looks forward to continued participation within the Coyote Valley Site Planning Process. We are particularly interested in continuing our participation in the Water, Lake, and Biological Subcommittees. The Department will bring relevant expertise to those committees. Because many of the issues associated with Coyote Valley deal with water issues, we have developed a special technical team within ESD to provide the necessary expertise and knowledge on the various upcoming water issues.

If you have any question, please contact Mary Tucker of my staff at 408-277-4111.



CARL W. MOSHER

Director, Environmental Services Department

Enclosure